

**HHSEGS (11-AFC-02)
TESTIMONY OF C.R. MACDONALD**

**BSE/SEC FILING
EXHIBIT 726**

**THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION
REGISTRATION NO. 333-173686
AMENDMENT NO. 8 TO FORM S-1 REGISTRATION STATEMENT
BRIGHT SOURCE ENERGY, INC.⁽¹⁾
MARCH 21, 2012**

-EXCERPTS-

(1) Available online in its entirety at:
http://www.nasdaq.com/markets/ipos/filing.ashx?filingid=8116961#D173853DS1A_HTM_TOC173853_2

TABLE OF CONTENTS

I.	Cover Page	1
II.	Risk Factors (Excerpt, p. 14-35)	23
III.	Forward Looking Statements (Excerpt, p. 36)	24
IV.	Management’s Discussion & Analysis of Financial Condition & Results Of Operations (Excerpt, p. 46-47).....	25
V.	Business: Company Overview (Excerpt, p. 78-79)	28
VI.	Business: Our Technology Solution For Utility Applications (Excerpt, p. 84-85)	30
VII.	Business: Heliostats (Excerpt, p. 92)	31
VIII.	Commitments And Contingencies: Land Lease Commitments (Excerpt F-44,F-45)	31
IX.	Commitments And Contingencies: Power Purchase Agreements (Excerpts F-45,F-46)	32

Table of Contents

As filed with the Securities and Exchange Commission on March 21, 2012

Registration No. 333-173686

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**AMENDMENT NO. 8
TO
FORM S-1
REGISTRATION STATEMENT**
*Under
The Securities Act of 1933*

BrightSource Energy, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

4911
(Primary Standard Industrial Classification Code Number)

76-0836010
(I.R.S. Employer Identification Number)

1999 Harrison Street, Suite 2150
Oakland, CA 94612
(510) 550-8161

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

John M. Woolard
President and Chief Executive Officer
BrightSource Energy, Inc.
1999 Harrison Street, Suite 2150
Oakland, CA 94612
(510) 550-8161

(Name, address including zip code, and telephone number including area code, of agent for service)

Copies to:

Alan Talkington
Brett Cooper
Orrick, Herrington & Sutcliffe LLP
405 Howard Street
San Francisco, CA 94105

Richard B. Aftanas
Skadden, Arps, Slate, Meagher & Flom LLP
Four Times Square
New York, NY 10036

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

http://www.nasdaq.com/markets/ipos/filing.ashx?filingid=8116961	Proposed	Proposed Maximum	11/6/2012
---	----------	------------------	-----------

RISK FACTORS

This offering involves a high degree of risk. You should carefully consider the risks and uncertainties described below and the other information in this prospectus before deciding whether to invest in shares of our common stock. If any of the following risks actually occur, our business, financial condition or operating results could be materially adversely affected. This could cause the trading price of our common stock to decline, and you may lose part or all of your investment.

This prospectus also contains certain forward-looking statements that involve risks and uncertainties. These statements refer to our future plans, objectives, expectations and intentions. These statements may be identified by the use of words such as "expects," "anticipates," "intends," "plans" and similar expressions. Our actual results could differ materially from those discussed in these statements. Factors that could contribute to these differences include those discussed below and elsewhere in this prospectus.

Risks Relating to Our Business and Industry

We have generated substantial net losses and negative operating cash flows since our inception and expect to continue to do so for the foreseeable future as part of the development and construction of solar thermal energy projects using our systems.

We have generated substantial net losses and negative cash flows from operating activities since we commenced operations. We have incurred losses of approximately \$288.2 million from our inception through December 31, 2011. For the years ended December 31, 2010 and 2011, we incurred net losses of \$71.6 million and \$111.0 million, respectively, and our net cash provided by (used in) operating activities was \$(64.1) million and \$83.9 million, respectively.

We expect that our net losses and our negative operating cash flows will continue for the foreseeable future, as we increase our development activities and construct solar thermal energy projects. Solar thermal energy projects typically accumulate negative cash flow during development prior to commercial operation, at which point the projects generally are expected to begin to generate positive operating cash flow. Currently, our project development generally begins approximately three to seven years before commercial operation. We also expect to incur the incremental costs of operating as a public company, contributing to our losses and operating uses of cash. Our costs may also increase due to such factors as higher than anticipated financing and other costs, non-performance by third-party suppliers or subcontractors, increases in the costs of labor or materials, and major incidents or catastrophic events. If any of these or similar factors occur, our net losses and accumulated deficit could increase significantly and the value of our common stock could decline.

Our proprietary technology has a limited history and may perform below expectations when implemented on utility-scale projects.

We use proprietary technology that has not been previously implemented on utility-scale projects of the size and complexity of the Ivanpah Solar Electric Generating System, or Ivanpah, and Ivanpah may experience technological problems that neither we nor any of the third-party independent engineers that have reviewed our projects are able to foresee. The systems that we will implement on utility-scale projects include a solar field with heliostats controlled by advanced software systems that concentrate sunlight onto a receiver to produce high-temperature steam. If the implementation of our proprietary technology is unsuccessful, it could negatively impact the successful operation of projects using our systems and may result in additional payments, deductions or defaults under key project documents, including our PPAs or other financing arrangements.

Furthermore, given the size and complexity of Ivanpah and other utility-scale projects' solar field construction and the fact that third-party contractors will be assembling systems using new and

unproven processes, there may be potential construction delays and unforeseen cost overruns. Delays at any single phase of construction may significantly impact the overall timing of commencing operations at Ivanpah or other projects.

In addition, there is a lack of long-term reliability data for our proprietary systems and technology. Actual long-term performance of these parts, including heliostats in the field, may fall short of expectations. Heliostats may be susceptible to damage from weather-related or other unforeseen events. For example, a severe windstorm in late November 2011 at the Coalinga Solar-to-Steam for EOR project resulted in movement in some of the pylons on which the heliostats are mounted. We are completing modifications to prevent any future pylon movement at Coalinga and are deploying redesigned pylons in much of the Ivanpah project and modifying some plant operating guidelines to reduce the risk of a similar occurrence in the future and enable the heliostats to operate at higher wind loads. However, we cannot be certain that these modifications or revised guidelines will prevent similar occurrences in the future. Furthermore, our SolarPLUS solar thermal power plant solution, which combines our solar power tower technology with two-tank molten-salt storage capabilities, may not perform as expected. Equipment performance issues at our projects could result in significant operational problems for our company, including increased maintenance costs, decreased revenue, inability to meet energy delivery requirements or defaults under project or financing documents.

Our future growth is dependent upon the successful implementation of Ivanpah, the first utility-scale solar thermal power project using our technology, as well as the Coalinga Solar-to-Steam for EOR project.

Our future success depends on the ability to construct Ivanpah, the first utility-scale solar thermal power project using our technology, in a cost-effective and timely manner. The ability to complete Ivanpah and the planning, development and construction of all three phases are subject to significant risk and uncertainty, including:

- Ivanpah is being primarily financed by a U.S. Department of Energy, or DOE, guaranteed loan facility, which requires the project companies to remain in compliance with numerous financial, construction and operational covenants to draw funds under the loan facility, compliance with which are within the control of NRG Solar, the majority equity owner and operator of Ivanpah;
- the construction of any of our projects will be subject to the risks inherent in the construction of solar thermal projects that have never been built on the scale of Ivanpah, including risks of delays and cost overruns as a result of a number of factors, many of which may be out of our control, such as delays in government approvals, burdensome permit conditions and delays in the delivery of materials and equipment that we manufacture or obtain from suppliers;
- our customized system and equipment may take longer and cost more to engineer and build than expected and may never operate as required to meet our production plans, which production plans are guaranteed pursuant to our construction and supply contracts with Ivanpah;
- we depend on third-party relationships to produce components in our system, which may subject us to risks that such third parties do not fulfill their obligations to us under our arrangements with them;
- the timely completion of upgrades by SCE to the existing transmission interconnection to accommodate the increased electrical production from Ivanpah, which if delayed could limit the amount of electricity produced at Ivanpah;
- once implemented at utility scale, our solar thermal technology may perform below expectations, which may implicate the production guarantees in our construction and supply contracts with Ivanpah; and

- if Ivanpah fails to comply with its permits, including those relating to protection of the environment and natural resources, or if unexpected conditions are encountered during construction or operation that require that these permits be re-evaluated, Ivanpah may be required to halt or delay construction or operation.

Once construction is completed, Ivanpah will be operated by NRG Solar, and therefore we will have limited influence over Ivanpah's future operations. If the construction and operation of Ivanpah are not successful, we may be unable to grow our business to a sufficient scale necessary to improve our results of operations and achieve profitability.

Furthermore, adoption of our systems for use in solar-to-steam applications, such as thermal EOR, depends on the successful implementation and operation of the 29 MWth EOR project for Chevron in Coalinga, California that began operations in October 2011. We have experienced significant cost overruns related to the project construction. If the Coalinga Solar-to-Steam for EOR project does not meet expectations, our ability to sell additional thermal EOR systems may be negatively impacted.

We may be required to fund cost overruns over the funded reserves for the completion of Ivanpah.

If Ivanpah's costs exceed the budgeted amount, we, along with the other equity owners of Ivanpah, have committed to funding up to \$66.5 million of overrun contingency reserves, known as the funded overrun equity. To the extent Ivanpah's cost overruns exceed the funded overrun equity, we are responsible for all further cost overruns. Cost overruns may occur if completing the portion of Ivanpah construction that is within our scope of responsibility costs more than expected, or when one of Ivanpah's contractors or suppliers encounter unexpected cost increases that entitle them to relief from their fixed-price contracts. If we are required to fund cost overruns over and above the funded overrun equity, we will not be entitled to recover this additional funding through future distributions from Ivanpah to the equity owners.

We may not be able to finance the growth of our business, which we expect will require significant amounts of capital, including the development and construction of solar thermal energy projects using our systems.

We are in a capital-intensive business and have relied heavily on debt and equity issuances and government grants and loan guarantees to finance the development and construction of our projects and other projected capital expenditures. For the projects where we lead development, we expect to own initially 100% of the equity in the projects, but may seek development partners on specific projects. We intend to ultimately transfer the majority of the equity in these projects to third parties while retaining a minority equity interest. Completion of our projects requires significant capital expenditures and construction costs. For example, in April 2011, we closed an approximately \$2.2 billion financing for the construction of Ivanpah. Recovery of the capital investment in a solar thermal energy project generally occurs over a long period of time. As a result, we must obtain funds from equity or debt financings, including tax equity transactions, or from government grants to help develop and construct our existing project pipeline, to help finance the acquisition of system components, to help identify and develop new projects, to help fund research and development expenses and to help pay the general and administrative costs of operating our business. We may not be able to obtain the needed funds on terms acceptable to us, or at all. For example, Ivanpah was primarily financed by a \$1.6 billion loan, guaranteed by the DOE and funded by the Federal Financing Bank, a branch of the U.S. Department of the Treasury, or the U.S. Treasury, but government funding may not be available to finance future projects. Furthermore, because we rely on debt financing to develop our projects, increases in long-term interest rates could significantly increase our cost of capital. If we are unable to

raise additional funds when needed, our project companies could be required to delay development and construction of projects, reduce the scope of projects or abandon or sell some or all of their development projects or default on our contractual commitments in the future, any of which would adversely affect our business, financial condition and results of operations.

We depend heavily on federal, state and local government support for renewable energy sources, which is subject to change.

We depend heavily on government policies that support renewable energy and enhance the economic feasibility of developing solar energy projects. Renewable energy sources currently benefit from various federal, state and local governmental incentives such as investment tax credits, or ITCs, cash grants in lieu of ITCs, loan guarantees, renewables portfolio standard programs, or RPS programs, modified accelerated cost-recovery system of depreciation and bonus depreciation. For example, the Internal Revenue Code of 1986, as amended, or the Code, provides an ITC of 30% of the cost-basis of an eligible resource, including solar thermal energy projects placed in service prior to the end of 2016. Additionally, many states have adopted RPS programs mandating that a specified percentage of electricity sales come from eligible sources of renewable energy. However, the regulations that govern the RPS programs, including pricing incentives for renewable energy, or reasonableness guidelines for pricing that increase valuation compared to conventional power (such as a projected value for carbon reduction or consideration of avoided integration costs), may change. If the RPS requirements are reduced or eliminated, we could sustain fewer future power contracts or receive lower prices for the sale of power in future power contracts, which could have a material adverse effect on us and our project development plans. Such material adverse effects may result from decreased revenues, reduced economic returns on certain project company investments, increased financing costs, and/or difficulty obtaining financing. Furthermore, the American Recovery and Reinvestment Act of 2009, or ARRA, included over \$80 billion in incentives to encourage investment in the renewable energy sector, such as cash grants in lieu of ITCs, bonus depreciation and expansion of the DOE loan guarantee program. Although the ARRA expanded the DOE loan guarantee program, this program faces challenges and may not continue past the projects already financed such as Ivanpah. In addition, the cash grant in lieu of ITCs program only applies to projects that commenced construction prior to December 31, 2011.

Our industry is rapidly evolving and highly competitive and failure to further refine and develop improved technologies could render our solar thermal technology obsolete and reduce our sales and market share relative to other renewable energy sources.

The renewable energy industry is highly competitive, and if we fail to identify and adapt to new technologies, such failure could have a material adverse effect on our business, financial condition and results of operations. In order to remain competitive, we will need to invest significant financial resources in research and development to keep pace with technological advances in the solar energy industry. However, returns on research and development activities are inherently uncertain, and we could encounter practical difficulties in commercializing our research results. Our significant expenditures on research and development may not produce corresponding benefits. Other companies are developing a variety of competing solar energy technologies, including crystalline silicon and thin film technologies, that could produce solar energy systems that may prove more cost-effective or more efficient than our technology. As a result, if we do not execute on our technology roadmap as planned, our solar thermal technology may be rendered obsolete by the technological advances of others, which could reduce our revenue and market share.

Our ability to execute on our existing and future pipeline of PPAs and solar-to-steam contracts, as well as our ability to sell our systems, depends in large part on locating suitable sites, securing site control, obtaining and complying with necessary governmental approvals and permits and administering key milestones and deliverables, the failure of which would adversely affect our business.

Our ability to convert our PPAs and solar-to-steam contracts into sales of systems using our technology depends in large part on locating sites suitable for construction of a solar thermal energy project, securing site control, obtaining necessary governmental approvals and permits and administering key milestones and deliverables. Electric power plants using our systems must be interconnected to electricity transmission, gas transmission and distribution networks. For example, our PPAs require specific interconnection points for the transmission of electricity and if our project companies are unable to connect at such points, we may have to seek the counterparty's approval or amend or renegotiate the PPA, or the PPA could be terminated. Solar thermal energy projects using our systems must also secure an adequate water supply primarily for periodic washing of heliostats.

Once projects using our systems have identified a suitable operating site, obtaining the necessary land rights requires negotiation with landowners and local government officials, which can take a long period of time, is not always successful and sometimes requires economic concessions not originally planned. The design, construction and operation of solar thermal energy projects are highly regulated, require various governmental approvals and permits, including environmental approvals and permits, and may be subject to the imposition of conditions that vary by jurisdiction. In some cases, these approvals and permits require periodic renewal. In addition, third-party permits may be required for transmission upgrades needed to deliver electricity from our projects, and such transmission is also highly regulated and requires various governmental approvals and permits, including environmental approvals and permits. We cannot predict whether all approvals and permits required for a given project will be granted or whether the conditions associated with the approvals and permits will be achievable or financially practicable. The denial of an approval or a permit essential to a project or the imposition of impractical conditions on a project would impair our ability to develop projects necessary to meet the commercial operation deadlines under our PPAs. In addition, we cannot predict whether the approvals and permits will attract significant opposition or whether the permitting process will be lengthened due to complexities of appeals or litigation by local, state or federal parties.

Our project companies have experienced delays in developing projects due to delays in obtaining permits and may experience delays in the future. This delay in the review and permitting process for a project can impair the ability to develop a project or increase the cost so substantially that the project is no longer attractive to us or the owners of projects using our systems. If we were to commence construction in anticipation of our project companies obtaining the final permits needed for a project, we would be subject to the risk of being unable to complete the project if all the permits were not obtained. If this were to occur, we would likely lose a significant portion of our investment in the project company and could incur a loss as a result. Any failure to procure and maintain necessary permits would adversely affect ongoing development, construction and operation of projects using our systems.

Furthermore, federal and state environmental legislation and regulations are subject to change, and future requirements may include stricter standards and enforcement, as well as more stringent fines and penalties for non-compliance. Environmental assessments of proposed projects carry a heightened degree of responsibility for companies and their directors, officers and employees. The cost of compliance with changes in governmental regulations has a potential to reduce the profitability of our operations.

If our project companies are unable to obtain adequate property rights for a project, including its interconnection rights, such project may be smaller in size or potentially unfeasible. The property rights necessary to construct and interconnect projects using our systems must also be insurable and

otherwise satisfactory to the financing counterparties. Failure to obtain insurable property rights for a project satisfactory to our project companies' financing counterparties would preclude our ability to obtain third-party financing and could prevent ongoing development and construction of such project. We could also incur losses as a result of development costs for sites that are not completed, which we would have to write off.

Finally, executing on our PPAs requires identifying, tracking and administering key milestones and deliverables set forth in the PPAs. Failure to do so could result in penalties or termination under the terms of the PPAs, or we may have to seek to amend or renegotiate the PPA.

Current or future litigation or administrative proceedings could have a material adverse effect on our business, financial condition and results of operations.

We have been, and continue to be, involved in legal proceedings, administrative proceedings, claims and other litigation that arise in the ordinary course of business. Individuals and interest groups may choose to litigate the issuance of a permit for a solar thermal energy project or seek to enjoin construction of a solar thermal energy project, among other potential issues. For example, in January 2011, two lawsuits were filed claiming that the permitting process for Ivanpah did not comply with various federal requirements; while the first of these challenged four large-scale projects, the second focused on Ivanpah alone. While we believe the claims are without merit, unfavorable outcomes or developments relating to these or future proceedings, such as judgments for monetary damages, injunctions or denial or revocation of permits, could have a material adverse effect on our business, financial condition and results of operations. In addition, settlement of claims could adversely affect our financial condition and results of operations. See "Business—Legal Proceedings."

We face competition from both more established renewable energy generation developers and traditional energy companies and we may not be successful in competing in this industry.

We compete with other renewable energy companies and developers as well as traditional energy companies and developers, which may have greater financial and other resources than we do. Our project companies compete with other solar companies primarily for sites with high levels of direct sunlight that can be built in a cost-effective manner, and with other energy companies for access to transmission or distribution networks. We also compete with other renewable energy developers for the limited pool of personnel with requisite industry knowledge and experience.

The solar energy market is at a relatively early stage of development, and the extent to which solar thermal technology will be widely adopted by purchasers of electricity or the EOR industry is uncertain. If our solar thermal technology proves unsuitable for widespread adoption or if demand for our solar energy systems fails to develop sufficiently, we may be unable to grow our business beyond our signed PPAs or generate sufficient sales to achieve and then sustain profitability. Renewable energy companies are competing intensely to meet the needs of utilities to provide power during periods of peak demand, in part, we believe, because utilities may be willing to pay more for reliable power on-peak than for power that is less reliable and/or delivered off-peak. Other renewable energy sources, or other technologies designed to enhance reliability of power supply during periods of peak load for utilities, may exceed our systems' capabilities in meeting this on-peak demand. We believe our systems provide a cost-competitive solution with characteristics that are more valuable to utilities than other renewable energy technologies; however, if other sources or technologies are better able to meet the utilities' needs, or the utilities prove unwilling to pay more for reliable on-peak power, our ability to enter economically feasible long-term PPAs in the future may be adversely affected.

Depending on the regulatory framework and market dynamics of a region, we may also compete with other renewable energy producers or traditional electricity producers when we bid on or negotiate

for a long-term PPA. Furthermore, technological progress in traditional forms of electricity generation or the discovery of large new deposits of traditional fuels could reduce the cost of electricity generated from those sources and as a consequence reduce the demand for electricity from renewable energy sources, or render existing or future solar thermal energy projects uncompetitive. Any of these developments could have a material adverse effect on our business, financial condition and results of operations.

Electric power plants using our systems to generate electricity rely on national and regional transmission systems and related facilities that are owned and operated by third parties and have both regulatory and physical constraints impeding access to electric markets.

Electric power plants using our systems to generate electricity in both domestic and international regions depend on electric transmission systems and related facilities owned and operated by third parties to deliver the electricity we generate and have both regulatory and physical constraints impeding access to electric markets. Electric power plants using our systems may have limited or no access to interconnection and transmission capacity at reasonable costs or in a timely fashion, because there may not be transmission capacity available or there are many parties seeking access to the limited capacity that is available. In addition, certain PPAs we have entered into contain provisions that limit, or cap, the maximum allowable transmission costs under such PPAs, which may have the effect of increasing total project costs for electric power plants using our systems. The inability to secure access to capacity at reasonable costs, in a timely fashion or at all, could cause delays and require renegotiation of key PPA terms. Any such increased costs and delays could, in turn, delay the commercial operation dates of, or could result in termination of the PPAs associated with, electric power plants using our systems and negatively impact our revenues and financial condition.

We may be unable to construct our solar thermal projects on time, and our construction costs could increase to levels that make a project too expensive to complete or make the return on our investment in that project less than expected.

Ivanpah is the first utility-scale solar thermal power project using our technology, and we anticipate that our subsequent projects will be more cost-efficient as we gain further experience in constructing large-scale projects. However, there may be delays or unexpected developments in completing our solar thermal projects, which could cause the construction costs of these projects to exceed our expectations. Projects using our systems and where we have an ownership interest may suffer significant construction delays or construction-cost increases as a result of a variety of factors, including:

- failure to complete interconnection to transmission networks;
- failure to secure and maintain environmental and other permits or regulatory approvals;
- appeals of environmental and other permits or approvals that we obtain;
- failure to obtain capital;
- failure to obtain all necessary rights to land access and use;
- failure to receive critical components and equipment that meet our design specifications;
- delays in scheduled deliveries of critical components and equipment;
- failure to receive quality and timely performance from key contractors and vendors;
- increases in supplier costs, including those due to unexpected increases in inflation or commodity prices;
- work stoppages or shortages of skilled labor;
- inclement weather conditions;

- adverse environmental and geological conditions; and
- force majeure or other events out of our control.

Any of these factors could give rise to construction delays and construction costs in excess of our expectations. This could prevent the project from completing construction or cause significant delays, causing defaults under the project financing agreements or under PPAs that require completion of project construction by a certain time, cause the project to be unprofitable for us or otherwise impair our business, financial condition and results of operations.

If we cannot continue to develop projects to satisfy our PPAs, our ability to sell our systems will be negatively impacted and we may have significant write-offs.

If new projects fail to be completed on an ongoing basis, we may be unable to satisfy the obligations under our PPAs. Because completing the projects in our development pipeline as anticipated, or at all, involves numerous risks and uncertainties, some projects in our portfolio may not progress to construction or may be substantially delayed. From time to time, we may have to abandon and write off projects on which we have started development. In addition, those projects that are constructed and begin operations may not meet investors' return expectations due to schedule delays, cost overruns or revenue shortfalls or they may not generate the capacity that we anticipate or result in receipt of revenue from system sales in the originally anticipated time period or at all. An inability to maintain our development pipeline or to convert those projects into financially successful operating projects that purchase our system and satisfy our PPAs would have a material adverse effect on our business, financial condition and results of operations.

We may not be able to identify adequate strategic relationship opportunities, or form strategic relationships, in the future.

Strategic business relationships will be an important factor in the growth and success of our business, particularly internationally. We have entered into business partnership agreements with Alstom, one of our major stockholders, to jointly market and bid on projects to design and construct solar thermal power plants in the Middle East, Northern Africa, South Africa, Southern Europe, India, Australia and potentially other locations as we see fit. Furthermore, we recently completed a solar-to-steam EOR demonstration facility for Chevron, which is also one of our stockholders. Lastly, we selected Bechtel as the EPC contractor for Ivanpah. Bechtel also funded a portion of our equity commitment for each of the three phases of Ivanpah pursuant to a loan agreement and is providing additional preliminary engineering work in support of our development efforts on our next projects.

There are no assurances that we will be able to identify or secure additional business relationship opportunities in the future or maintain our existing relationships. Our competitors also may capitalize on such opportunities before we do. We may not be able to offer similar benefits to other companies that we would like to establish and maintain strategic relationships with which could impair our ability to establish such relationships. Moreover, identifying such opportunities could demand substantial management time and resources, and negotiating and financing relationships involves significant costs and uncertainties. If we are unable to successfully identify and execute on strategic relationship opportunities in the future, our overall growth could be impaired and our operating results could be materially adversely affected.

Negative public or community response to solar thermal projects could adversely affect widespread adoption of systems using our technology.

Negative public or community response to solar thermal energy projects could adversely affect our ability to sell our systems to projects using our technology and our project companies' ability to

develop, construct and operate their projects. This type of negative response could lead to legal, public relations and other challenges that impede our project companies' ability to meet our development and construction targets, achieve commercial operations for a project on schedule and generate revenues. For example, Ivanpah has been, and continues to be, the subject of administrative and legal challenges from groups concerned with potential environmental impacts (e.g., impacts on the California desert tortoise and other wildlife species affected by Ivanpah), archaeological or cultural impacts or impacts on the natural beauty of public lands. We expect this type of opposition to continue as we develop and construct existing and future projects using our systems. An increase in opposition to our requests for permits or successful challenges or appeals to permits issued to us could materially adversely affect our development plans. If we are unable to develop and construct the production capacity to the scale that we expect from our development projects in our anticipated timeframes, our business, financial condition and results of operations could be materially adversely affected.

Our industry is characterized by a limited number of purchasers for utility-scale quantities of electricity and solar steam, which restricts our ability to negotiate PPAs and solar-to-steam contracts and could expose us and projects that use our systems to additional risk.

Our industry has a limited number of possible purchasers for utility-scale quantities of electricity in a given geographic location, including investor-owned power companies, public utility districts and cooperatives, as well as a limited number of possible purchasers for utility-scale quantities of solar steam that are located in areas in which we could economically produce that steam. As a result, there is a concentrated pool of potential buyers for projects using our systems that generate utility-scale quantities of electricity or solar steam, which may restrict our ability to negotiate favorable terms under new PPAs or solar-to-steam contracts and could impact our ability to find new customers for our system sales. Furthermore, if the financial condition of these utilities, power purchasers and/or steam purchasers deteriorated or the RPS and climate change programs to which they are currently subject changed, demand for electricity or solar steam generated by projects using our systems could be negatively impacted. The willingness of utilities to purchase electricity from an independent power producer may be based on a number of factors and not solely on pricing and predictability of supply. If we cannot enter into PPAs or solar-to-steam contracts on terms favorable to us, or at all, it would negatively impact our revenue and our decisions regarding development of additional projects to support sales of our systems.

Some of our PPAs have not yet been approved by the California Public Utilities Commission.

In order to be fully effective, each of our PPAs must be approved by the California Public Utilities Commission, or CPUC. It is the obligation of the utility entering into the PPA to obtain such approval. Through our project companies, we have 13 executed and outstanding PPAs with PG&E and SCE. Three of the PPAs are associated with Ivanpah and have been approved by the CPUC, and we retain 10 PPAs to deliver approximately 2.0 GW of installed capacity, of which five have been approved by the CPUC. With respect to the remaining PPAs requiring CPUC approval, in October 2011, we executed five amended and restated PPAs with SCE. These PPAs were submitted to the CPUC for approval in November 2011. If the five amended and restated PPAs are not approved by the CPUC, they will be subject to termination by either party thereto, which could adversely affect our business, financial condition and results of operations.

Pursuant to the terms of each of our existing PPAs, the failure to fulfill the performance requirements may require renegotiation, or result in the imposition of penalties or termination of the PPA.

Pursuant to the terms of the PPAs that we have entered into with PG&E and SCE, under which project companies we have formed will sell electrical output, we have deposited funds under each PPA

to secure the respective project company's obligations thereunder. The amounts we have deposited under each of our ten existing PPAs that are not associated with Ivanpah range up to \$7 million, with total deposits of approximately \$51 million to date. If we do not meet certain development milestones specified in the PPAs, the project company may be declared to have committed an event of default under the PPA and the entire deposit amount may be forfeited as a penalty for failure to perform. If we anticipate or experience delays in obtaining permits, regulatory approvals, ordering major equipment, commencing construction, completing transmission network upgrades or establishing interconnection facilities, we may need to amend a PPA to provide additional time to satisfy a performance requirement. If we cannot negotiate an amendment, we may experience an event of default. If an event of default occurs, and we are unable to renegotiate the terms of the PPA, the PPA may be terminated. Any renegotiation of a PPA may result in terms that are less favorable to us. In addition, the parties may interpret the PPA requirements differently, which could lead to a dispute resolution process that could result in an unfavorable decision for either party. After we sell majority control of a project company to third parties, the related PPA security deposits are the responsibility of the project company and its owners. However, any forfeiture and event of default, or termination, whether before or after we sell majority control of the project company to third parties, could materially and adversely affect our financial condition and cash flow.

The Ivanpah Treasury Cash Grant could be recaptured by the government.

The economics of Ivanpah are heavily influenced by the assumed full receipt of U.S. Department of the Treasury cash grants, or Treasury Cash Grant, aggregating approximately \$570 million. The U.S. Treasury is generally required to pay the Treasury Cash Grant by the later of sixty days after a project is placed into service or sixty days after the date on which an application is submitted. After receiving a Treasury Cash Grant, the grant may be recaptured by the government if, within five years of the date the project is placed in service, any interest in the project or company is transferred to certain prohibited persons, the equipment ceases to be specified energy property or the equipment is taken out of service (other than due to an "act of God"). Specified energy property includes only tangible property (not including a building or its structural components) for which depreciation, or amortization in lieu of depreciation, is allowable. The Treasury Cash Grant program currently is available only to projects that had commenced construction by December 31, 2011, and this program was not extended.

There is no guarantee that the U.S. Treasury or the tax law will recognize the cost basis that we claim in a project's specified energy property. If the U.S. Treasury concludes that the true cost of any specified energy property is lower than the cost of that property claimed by the project companies in which we have an ownership interest, then the U.S. Treasury may seek to reduce the amount of the Treasury Cash Grant that it pays to the project.

We are subject to credit and performance risk from third parties under service and supply contracts.

We enter into contracts with vendors to supply equipment, materials and other goods and services for our proprietary technology and the development and construction of solar thermal energy projects. If vendors do not perform their obligations, we may have to enter into new contracts with other vendors at a higher cost or may have schedule disruptions affecting the amount of time and expense required to complete a project. For example, some of our key components for Ivanpah, including boilers from Riley and turbines from Siemens, are available from a limited or sole source of supply. Replacement of these components, where possible, may involve long lead times and result in a delay in fulfilling our obligations to projects using our systems.

When we purchase third-party solar system components, we also enter into warranty agreements with the manufacturer. However, there can be no assurance that the manufacturer will be able to fulfill

its contractual obligations. In addition, these warranties generally expire within 12 to 24 months after the component delivery date or the date the component is commissioned. If we seek warranty protection and the manufacturer is unable or unwilling to perform its obligations under the warranty, whether as a result of the manufacturer's financial condition or otherwise, or if the term of the warranty has expired, we may suffer reduced warranty availability for the affected components, which could have a material adverse effect on our business, financial condition and results of operations. Also, under such warranties, the warranty payments by the manufacturer are typically subject to an aggregate maximum cap that is a portion of the total purchase price of the components. Losses in excess of these caps may be our responsibility .

The loss of one or more members of our senior management or key employees may adversely affect our ability to implement our strategy.

We depend on our experienced management team and the loss of one or more key executives could have a negative impact on our business. We also depend on our ability to retain and motivate key employees and attract qualified new employees. Because the utility-scale solar industry is relatively new, there is a scarcity of top-quality employees with requisite experience, especially experience in the solar thermal energy industry. If we lose a member of the management team or a key employee, we may not be able to replace him or her. Integrating new employees into our management and engineering teams and training new employees with no prior experience in the solar thermal energy industry could prove disruptive to our operations, require a disproportionate amount of resources and management attention and ultimately prove unsuccessful. An inability to attract and retain sufficient technical and managerial personnel could limit or delay our development efforts, which could have a material adverse effect on our business, financial condition and results of operations.

Problems with system component quality or performance at Ivanpah may cause us to incur solar field and receiver system warranty expenses and may damage our market reputation and cause our revenue to decline.

The materials and equipment we provide to Ivanpah will be warranted by us to be free of defects in workmanship and materials for a period of 48 months following the achievement of substantial completion under the EPC contract applicable to each Ivanpah project. All warranty work includes the cost of removal, disassembly, repair, replacement and reassembly of the warranted items. Repaired or replaced work is re-warranted for an additional 12-month period or the remainder of the original 48-month warranty period, whichever is longer, subject to a limitation that no warranty shall extend beyond 12 months following expiration of the original 48-month warranty period. We guarantee that each solar field and boiler at Ivanpah will provide sufficient steam output (at specified steam conditions set forth in the applicable EPC contract) to achieve substantial completion by the guaranteed substantial completion date. We further guarantee the achievement of at least 95% of projected plant electrical generation during at least one of the first four years of commercial operation. This guarantee excludes lost electrical generation unrelated to the solar energy system design, solar field equipment or the boiler, due to the impact of weather conditions, or due to work or services provided by others (not under subcontract to BrightSource), but will not be subject to any sublimit of liability other than the aggregate limitation of liability (100% of the contract value) under each solar field agreement between us and the project. In addition, we will provide a 48-month serial defect warranty with respect to the pylons, mirrors, pad bonds, worm and elevation drives. In the event that 20% of any such warranted items have an identical defect, a rebuttable presumption will arise that 100% of all such items are defective.

Because of the limited operating history of our solar thermal systems, we have been required to make assumptions and apply judgments regarding a number of factors, including our anticipated rate of warranty claims, the durability and reliability of our systems and the performance of our equipment,

including heliostats in the field. Our assumptions could prove to be materially different from the actual long-term performance of our systems, resulting in significant operational problems for us including increased maintenance costs and inability to meet energy delivery requirements or defaults under project or financing documents. For example, a severe wind storm in late November 2011 at the Coalinga Solar-to-Steam for EOR project resulted in movement in some of the pylons on which the heliostats are mounted. As a result, we are deploying redesigned pylons in much of the Ivanpah project. Any similar widespread system or component failures may damage our market reputation and cause our revenue to decline. In addition, while we have obtained warranty insurance, such insurance is subject to certain deductibles, recoveries under such insurance could be disputed and certain valid warranty claims may be specifically excluded from such insurance.

The production of solar energy depends heavily on suitable meteorological conditions. If solar conditions are unfavorable, our electricity production, and therefore revenue from projects using our systems, may be substantially below our expectations.

The electricity produced and revenues generated by a solar energy project will be highly dependent on suitable solar conditions and associated weather conditions, which are beyond our control. Furthermore, components of our system, such as the heliostats, could be damaged by severe weather, such as hailstorms or tornadoes. Unfavorable weather and atmospheric conditions could impair the effectiveness or require shutdown of key equipment, impeding operation of our projects, which would result in reduced energy production and decreased revenues and, if these problems persist, potential payments, deductions or defaults under key project documents, including our projects' PPAs or other financing arrangements.

In the long term, we intend to expand our international activities, which will subject us to a number of risks.

Our long-term strategic plans include international expansion, such as through our pre-disclosed partnership with Alstom to jointly market and bid on projects in the Middle East, Northern Africa, South Africa, Southern Europe, India and Australia. We intend to sell our proprietary technology system and develop, construct and sell our solar thermal system in international locations. Risks inherent to international operations include the following:

- inability to work successfully with third parties having local expertise to co-develop international projects;
- multiple, conflicting and changing laws and regulations, including export and import restrictions, tax laws and regulations, environmental regulations, labor laws and other government requirements, approvals, permits and licenses;
- difficulties in enforcing agreements in foreign legal systems;
- difficulties in protecting and enforcing our intellectual property rights;
- changes in general economic and political conditions in the countries in which we operate, including changes in government incentives relating to power generation and solar electricity;
- political and economic instability, including wars, acts of terrorism, political unrest, boycotts, curtailments of trade and other business restrictions;
- difficulties and costs in recruiting and retaining individuals skilled in international business operations;
- international business practices that may conflict with U.S. customs or legal requirements;
- financial risks, such as longer sales and payment cycles and greater difficulty collecting accounts receivable;

- fluctuations in currency exchange rates relative to the U.S. dollar; and
- inability to obtain, maintain or enforce intellectual property rights.

Doing business in foreign markets requires us to be able to respond to rapid changes in market, legal and political conditions in these countries. The success of our business will depend, in part, on our ability to succeed in differing legal, regulatory, economic, social and political environments. We may not be able to develop and implement policies and strategies that will be effective in each location where we do business.

Political, economic and security conditions in Israel, where all of the product research and development, engineering services and solar field supply chain management for our systems are located, may adversely affect our operations and may limit our ability to sell our systems.

Our Israeli subsidiary provides substantially all of the product research and development, engineering services and procurement functions for our systems, including heliostats, solar boilers and control systems for all of our solar fields. Political, economic and security conditions in Israel directly affect our subsidiary employees and operations. There has been ongoing violence, primarily in the West Bank and Gaza Strip. We could be adversely affected by hostilities involving Israel, the interruption or curtailment of trade between Israel and its trading partners or a significant downturn in the economic or financial condition of Israel. In addition, the sale of products manufactured in Israel may be adversely affected in certain countries by restrictive laws, policies or practices directed toward Israel or companies having operations in Israel.

In addition, some of our employees in Israel are subject to being called on to perform military service and their absence may have an adverse effect upon our operations. Generally, unless exempt, male adult citizens of Israel under the age of 41 are obligated to perform up to 36 days of military reserve duty annually and all such citizens are subject to being called to active duty at any time under emergency circumstances.

These events and conditions could disrupt our operations in Israel, which could materially harm our business, financial condition, future results and cash flow.

We are an international organization and we could be obligated to pay taxes in various jurisdictions.

Historically, our foreign operations have been located in Israel, but we anticipate expanding into other foreign jurisdictions in the future. As an international organization we will be subject to taxation in foreign jurisdictions with increasingly complex tax laws, the application of which can be uncertain. The amount of taxes we pay in these jurisdictions could increase substantially as a result of changes in the applicable tax principles, including increased tax rates, new tax laws or revised interpretations of existing tax laws and precedents, which could have a material adverse effect on our liquidity and results of operations. In addition, the authorities in these jurisdictions could review our tax returns and impose additional tax, interest and penalties, and the authorities could claim that various withholding requirements apply to us or our subsidiaries or assert that benefits of tax treaties are not available to us or our foreign subsidiaries, any of which could have a material impact on us and the results of our operations.

Taxing authorities could reallocate our taxable income among our subsidiaries which could increase our consolidated tax liability.

We intend to conduct operations worldwide through subsidiaries in various tax jurisdictions. If two or more affiliated companies are located in different countries, the tax laws or regulations of each

country generally will require that transfer prices be the same as those between unrelated companies dealing at arm's length and that contemporaneous documentation is maintained to support the transfer prices. On that basis, tax authorities could require us to adjust our transfer prices and thereby reallocate our income to reflect these revised transfer prices, which may result in a higher tax liability to us and possibly result in two countries taxing the same income, which could adversely affect our financial condition, results of operations and cash flows.

Proposed and enacted U.S. federal income tax legislation could negatively impact our effective tax rate.

Recent changes to U.S. tax law as well as other proposed tax legislation that could be enacted in the future could substantially impact the tax treatment of our non-U.S. earnings. These proposed and enacted changes include limitations on the ability to claim and utilize foreign tax credits and deferral of interest expense deductions until non-U.S. earnings are repatriated to the United States. Such legislation could negatively impact the amount of taxes payable in the United States and our effective tax rate and possibly adversely affect our results of operations.

Our business will be adversely affected if we are unable to protect our intellectual property rights from unauthorized use or infringement by third parties.

Any failure to protect our proprietary rights adequately could result in our competitors offering similar solar thermal technology more quickly than anticipated, potentially resulting in the loss of some of our competitive advantage and a decrease in our revenue which would adversely affect our business prospects, financial condition and operating results. Our success depends, at least in part, on our ability to protect our core technology and intellectual property. We primarily rely on a combination of trade secrets and contractual rights, including employee and third-party nondisclosure agreements, to protect our proprietary information and know-how. We also maintain a growing patent portfolio that as of February 29, 2012 consisted of nine issued U.S. patents (including one patent covering dynamic system optimization and another covering integration of solar thermal systems and PV, both of which were issued by the U.S. Patent and Trademark Office in the second half of 2011, and one patent covering heliostat design) and numerous patent applications, which included on the above date 11 patent applications covering solar field optimization and control, six patent applications covering our operating methods, seven patent applications covering heliostat and receiver design and three patent applications covering thermal energy storage.

The protection provided by the intellectual property laws and contractual rights may be important to our future opportunities. However, the measures we take to protect our intellectual property from use by others afford only limited protection and may not be effective. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States, and policing the unauthorized use of our intellectual property is difficult.

We may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to us, could cause us to pay significant damage awards or prohibit us from the construction and sale of our solar thermal facilities or the use of our value added system technology.

The technology incorporated into and used to develop and construct our current and future systems may be subject to claims that they infringe the patents or proprietary rights of others. Should the outcome of any such claims be unfavorable, we could be required to pay the plaintiff(s) damages and potentially be enjoined from using what the plaintiff(s) claim is their property or confidential information unless we enter into a mutually suitable arrangement. As a result, the financial condition, results of operations and cash flows of our projects could be materially and adversely affected. Third

parties may allege that our projects infringe patents, trademarks or copyrights, or that we have misappropriated trade secrets, and such parties could have significantly more resources to devote to any resulting enforcement actions. These allegations could result in significant costs and diversion of the attention of management. If a claim were brought against us, and we were found to have infringed upon a third party's intellectual property rights, we could be required to pay substantial damages, including treble damages, or be enjoined from using the technology deemed to be infringing or using or constructing systems deemed to be infringing, which could significantly delay construction and/or operation of our projects. In addition, we may need to attempt to license the intellectual property rights from the patent holder or spend time and money to design around or avoid the intellectual property infringement. Any such license may not be available on reasonable terms, or at all, and efforts to design around or avoid the intellectual property may be unsuccessful.

We, our partners and project companies may rely on specialized structured financing arrangements to realize the benefits provided by ITCs and accelerated tax depreciation. These arrangements may limit the cash distributions we receive.

Our project companies may enter into tax equity financing transactions in which they would receive investments from tax equity investors when our projects are placed in service in return for tax benefits in our project companies. Until the tax equity investors achieve their agreed upon rate of return, they may be entitled to substantially all of the applicable project's operating cash flow from electricity sales and related hedging activities, as well as substantially all of the project's ITCs, accelerated depreciation and taxable income or loss. Typically, project sponsors structure tax equity financing transactions so that the tax equity investors reach their target return between five and ten years after the applicable project achieves commercial operation.

As a result, a tax equity financing may substantially reduce the cash distributions from the applicable project available to us for other uses, and the period during which the tax equity investors receive most of the cash distributions from electricity sales may last longer than expected if our solar thermal energy projects perform below our expectations.

The ability of our project companies to enter into tax equity arrangements in the future depends heavily on the extension of the expiration date or renewal of the ITCs, without which the market for tax equity financing would possibly cease to exist. Moreover, there is a limited amount of tax equity investment capital and a limited number of potential tax equity investors. Solar thermal energy developers must compete with other renewable energy developers and others for tax equity financing. In addition, conditions in financial and credit markets generally may result in the contraction of available tax equity financing. As the renewable energy industry expands, the cost of tax equity financing may increase and there may not be sufficient tax equity financing available to meet the total demand in any year. If our project companies are unable to enter into tax equity financing agreements with attractive pricing terms, or at all, they may not be able to use the tax benefits provided by ITCs and accelerated tax depreciation in the manner they do so today, which could have a material adverse effect on our business, financial condition and results of operations.

Changes to financial accounting standards may affect our results of operations and cause us to change our business practices.

We prepare our financial statements in accordance with accounting principles generally accepted in the United States, or GAAP. These accounting principles are subject to interpretation by the Financial Accounting Standards Board, the SEC and various bodies formed to interpret and create appropriate accounting policies. A change in these accounting standards or the questioning of current reporting practices may adversely affect our reported financial results or the way we conduct our business.

We are not able to insure against all potential risks and may become subject to higher insurance premiums.

Our business is exposed to the risks inherent in the development, construction and operation of solar thermal energy projects, such as breakdowns, manufacturing defects, natural disasters, terrorist attacks and sabotage. We are also exposed to environmental risks. We have insurance policies covering certain risks associated with our business. Our insurance policies, however, do not cover losses as a result of force majeure, natural disasters, terrorist attacks or sabotage, among other things. We generally do not maintain insurance for certain environmental risks, such as environmental contamination. In addition, our insurance policies are subject to annual review by our insurers and may not be renewed at all or on similar or favorable terms. A serious uninsured loss or a loss significantly exceeding the limits of our insurance policies or the failure to renew our insurance policies on similar or favorable terms could have a material adverse effect on our business, financial condition and results of operations.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs could be further limited by Section 382 of the Code. Future changes in our stock ownership, some of which are beyond our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of any companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

Our largely unproven mirror cleaning equipment may perform below our expectations.

The primary maintenance activity for solar thermal projects using our systems will be the routine and continuous washing of reflective mirror surfaces. We anticipate each mirror may need to be cleaned every two weeks to prevent a buildup of dust which would significantly degrade the system performance. Mirrors will be washed by a dedicated crew using specialized mobile equipment. We are still designing and testing the specialized equipment to be used in this process. If the mirror washing equipment and process are not effective, actual operating costs may be substantially higher than forecasted or total electrical production may fall short of estimates.

Our headquarters and some of our development sites are located in active earthquake zones, and an earthquake or other types of natural disasters affecting us or our suppliers could cause resource shortages and disrupt and harm our results of operations.

We conduct our executive and administrative operations in the San Francisco Bay Area, which is an active earthquake zone, and certain of our project companies, development sites and suppliers conduct their operations in the same region or in other locations that are susceptible to natural disasters. In addition, California and some of the locations where certain of our suppliers are located, from time to time, have experienced shortages of water, electric power and natural gas. The occurrence of a natural disaster, such as an earthquake, drought, flood or localized extended outages of critical utilities or transportation systems, or any critical resource shortages, affecting us or our suppliers, could cause a significant interruption in our business, damage or destroy our facilities or those of our suppliers or the manufacturing equipment or inventory of our suppliers, and cause us to incur significant costs, any of which could harm our business, financial condition and results of operations. The insurance we maintain against fires, earthquakes and other natural disasters may not be adequate to cover our losses in any particular case.

Risks Related to This Offering and Ownership of Our Common Stock

Our share price may be volatile and you may be unable to sell your shares at or above the initial public offering price.

The initial public offering price for our shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- unanticipated development or construction delays or other changes in our project plans;
- announcements of technological innovations or new products by us or our competitors;
- adverse announcements regarding systems performance;
- reductions in the retail price of electricity, to the extent projects are negotiating PPAs;
- additions to or departures of key personnel;
- the failure of securities analysts to cover our common stock after this offering or updates or changes in financial estimates or recommendations by securities analysts;
- the inability to meet the financial estimates of securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- disputes or other developments related to our intellectual property rights, including litigation, and our ability to obtain and maintain patent protection for our technology;
- changes in laws, regulations and policies applicable to our business and products, particularly those relating to government incentives for solar energy;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us or our stockholders;
- market conditions in our industry and industries of our customers; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. If the market price of shares of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, certain companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

There has been no prior market for our common stock and an active trading market may not develop.

Prior to this offering, there has been no public market for our common stock. An active trading market may not develop following the completion of this offering or, if developed, may not be

sustained. The lack of an active market may impair your ability to sell your shares of common stock at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value and increase the volatility of your shares of common stock. An inactive market may also impair our ability to raise capital by selling shares of common stock and may impair our ability to acquire other companies or technologies by using our shares of common stock as consideration.

We expect to incur increased costs and our management will face increased demands as a result of operating as a public company, including the costs to establish and maintain effective internal controls and remediate an existing material weakness.

We have never operated as a public company. As a public company, we will incur significant legal, accounting, internal controls over financial reporting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as related rules implemented by the SEC and The Nasdaq Stock Market, impose various requirements on public companies. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more expensive for us to maintain director and officer liability insurance. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as our executive officers.

In addition, the Sarbanes-Oxley Act requires, or will require, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we will be required to perform system and process evaluation and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. For example, we and our independent registered public accounting firm have identified a material weakness in our internal controls over financial reporting relating to the preparation of our consolidated statement of cash flows that has resulted in restatements to historical financial statements. We are currently in the process of remediating the material weakness. Our remediation plan includes, among other things, hiring additional accounting staff, enhancing our internal review procedures during the financial statement close process, providing additional technical training to key finance and accounting personnel and updating related control procedures to specifically address the identified control deficiencies. These activities are ongoing and management anticipates completing our remediation activities during the first half of 2012. Remediating this material weakness and maintaining proper and effective internal controls will require substantial management time and attention and may result in our incurring substantial incremental expenses.

In future periods, if the process required by Section 404 of the Sarbanes-Oxley Act or other evaluation and testing of our internal controls reveal any other material weaknesses or significant deficiencies, the correction of any such material weaknesses or significant deficiencies could require additional remedial measures or future restatements that could be costly and time-consuming. In addition, we cannot be certain that restatements will not occur in the future. Any restatements could create a strain on our internal resources and cause delays in our filing of quarterly or annual financial results. Failure to have effective internal financial and accounting controls could cause our financial reporting to be unreliable, and we may be unable to produce accurate financial reporting and disclosures on a timely basis. Any of the foregoing could cause investors to lose confidence in our consolidated financial statements, resulting in a material adverse effect on our business, reputation, results of operations, financial condition or liquidity, which could have a material adverse effect on the price of our common stock.

Concentration of ownership among our existing executive officers, directors and their affiliates may prevent new investors from influencing significant corporate decisions.

Upon completion of this offering and the concurrent private placements, our executive officers, directors and their affiliates will beneficially own, in the aggregate, approximately 33.6% of our outstanding shares of common stock. In particular, VantagePoint Capital Partners will beneficially own approximately 18.6% and Alstom will beneficially own approximately 21.9% of our outstanding shares of common stock upon completion of this offering and the concurrent private placements. As a result, these stockholders will be able to exercise a significant level of control over all matters requiring stockholder approval, including the election of directors, amendment of our certificate of incorporation and approval of significant corporate transactions. This control could have the effect of delaying or preventing a change of control of our company or changes in management and will make the approval of certain transactions difficult or impossible without the support of these stockholders.

Anti-takeover provisions in our charter documents and Delaware law, as well as restrictions and covenants in our DOE-guaranteed loan facility, could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.

Our amended and restated certificate of incorporation and bylaws to be effective upon the completion of this offering will contain provisions that could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our board of directors. Our corporate governance documents will include the following provisions:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- establishing a classified board of directors, as a result of which the successors to the directors whose terms have expired will be elected to serve from the time of election and qualification until the third annual meeting following their election;
- requiring that directors only be removed for cause; and
- limiting the determination to our board of directors then in office with respect to the number of directors on our board and the filling of vacancies or newly created seats on the board.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without the prior approval of our board of directors or the holders of substantially all of our outstanding common stock.

These provisions of our charter documents and Delaware law, alone or together, could delay or deter hostile takeovers and changes in control or changes in our management. Any provision of our amended and restated certificate of incorporation or bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging takeover attempts in the future.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our outstanding common stock immediately after this offering. Therefore, if you purchase our common stock in this offering, you will experience immediate and substantial dilution of your investment. Based upon the issuance and sale of 6,900,000 shares of common stock by us in this offering at an assumed initial public offering price of \$22.00 per share (the midpoint of the price range set forth on the cover of this prospectus) and 3,409,090 shares of common stock by us in the concurrent private placements, you will incur immediate dilution of approximately \$11.93 in the pro forma as adjusted net tangible book value per share if you purchase shares of our common stock in this offering.

In addition, following this offering and the concurrent private placements, purchasers in this offering will have contributed 20% of the total consideration paid by our stockholders to purchase shares of common stock, in exchange for acquiring approximately 15% of our total outstanding shares as of December 31, 2011 after giving effect to this offering and the concurrent private placements.

As of December 31, 2011, we had outstanding options and warrants to purchase approximately 3,090,212 shares of common stock with exercise prices that are below the assumed initial public offering price of the common stock. To the extent that these options and warrants are exercised, you will experience further dilution.

You may experience dilution of your ownership interest due to the future issuance of additional shares of our common stock.

We are in a capital intensive business, and may not have sufficient funds to finance the growth of our business, the construction costs of our development projects or to support our projected capital expenditures. As a result, we will require additional funds from further equity or debt financings, including tax equity financing transactions or sales of preferred shares or convertible debt to complete the development of new projects and pay the general and administrative costs of our business. In the future, we may issue our previously authorized and unissued securities, resulting in the dilution of the ownership interests of purchasers of common stock offered hereby. Under our amended and restated certificate of incorporation and bylaws, we will be authorized to issue 760,000,000 shares of common stock and shares of preferred stock with preferences and rights as determined by our board of directors. The potential issuance of additional shares of common stock or preferred stock or convertible debt may create downward pressure on the trading price of our common stock. We may also issue additional shares of common stock or other securities that are convertible into or exercisable for common stock in future public offerings or private placements for capital raising purposes or for other business purposes, potentially at an offering price, conversion price or exercise price that is below the offering price for common stock in this offering.

A significant portion of our total outstanding shares may be sold into the public market in the future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time after the expiration of the lock-up agreements described in the "Underwriting" and "Shares Eligible for Future Sale" sections of this prospectus. These sales, or the market perception that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering and the concurrent private placements, we will have 45,448,425 shares of common stock outstanding (assuming an initial public offering price at the midpoint of the price range set forth on the cover of this prospectus). This includes the 6,900,000 shares that we are

selling in this offering (plus any shares issued upon exercise of the underwriters' option to purchase additional shares), which may be resold in the public market immediately. The remaining 38,548,425 shares, or 85% of our outstanding shares after this offering and the concurrent private placements, are currently restricted as a result of securities laws or lock-up agreements but will be able to be sold upon the expiration of lock-up agreements, subject in some cases to volume and other restrictions of Rule 144 and Rule 701 under the Securities Act of 1933, as amended, or the Securities Act.

The lock-up agreements expire 180 days after the date of this prospectus, except that the 180-day period may be extended in certain cases for up to 33 additional days under certain circumstances where we announce or pre-announce earnings or a material event occurs within 17 days prior to, or 15 days after, the termination of the 180-day period. Goldman, Sachs & Co. may, with our consent, and at any time without notice, release all or any portion of the securities subject to lock-up agreements. The shares to be sold in the concurrent private placements are subject to the holding period requirements of Rule 144, and are therefore subject to a six month holding requirement before such shares can be sold in a non-registered transaction.

Following this offering, holders of 33,478,990 shares of our common stock (including the shares sold in the concurrent private placements) not sold in this offering and holders of warrants to purchase an aggregate of 108,590 shares of common stock not sold in this offering will be entitled to rights with respect to the registration of these shares under the Securities Act. See "Description of Capital Stock—Registration Rights." If we register their shares of common stock following the expiration of the lock-up agreements, these stockholders could sell those shares in the public market without being subject to the volume and other restrictions of Rule 144 and Rule 701.

After the completion of this offering and the concurrent private placements, we intend to register approximately 10,328,693 shares of common stock that have been reserved for future issuance under our stock incentive plans. Of these shares, 1,897,409 shares will be eligible for sale upon the exercise of outstanding options that will be vested after the expiration of the lock-up agreements.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Our management will have broad discretion over the use of the proceeds we receive in this offering and the concurrent private placements and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion over the use of the net proceeds from this offering and the concurrent private placements, and you will be relying on their judgment in applying these proceeds. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. At this time, we have not identified specific uses for the proceeds. However, we currently expect to use the net proceeds from this offering and the concurrent private placements for working capital, capital expenditures and general corporate purposes. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have

the opportunity to influence our decisions on how to use our net proceeds from this offering and the concurrent private placements.

After the completion of this offering and the concurrent private placements, we do not expect to declare any dividends in the foreseeable future.

After the completion of this offering and the concurrent private placements, we do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors may need to rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved. Forward-looking statements are based on information available at the time those statements are made and/or management's good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- the performance of our proprietary technology, which has a short history, when implemented on utility-scale projects;
- the successful implementation of Ivanpah, the first utility-scale solar thermal power plant using our technology, as well as the Coalinga Solar-to-Steam for EOR project;
- our ability to finance the growth of our business, including the development and construction of solar thermal energy projects using our systems;
- our dependence on federal, state and local government support for renewable energy sources, which are subject to change;
- our ability to further refine and develop improved technologies;
- locating sites, securing site control, permitting suitable operating sites and securing transmission access for projects using our systems;
- our ability to compete against more established renewable energy generation developers as well as traditional energy companies;
- our ability to procure and maintain the permits necessary to construct projects;
- our ability to identify adequate strategic relationship opportunities or form strategic relationships in the future;
- our ability to timely fulfill our obligations under our existing power purchase agreements;
- the attraction and retention of qualified employees and key personnel;
- our ability to successfully navigate the risks related to international expansion;
- the political, economic and security conditions in Israel where all of the product development, engineering services and solar field supplies for our system are located;
- our ability to protect our intellectual property; and
- other risk factors included under "Risk Factors" in this prospectus.

In addition, in this prospectus, the words "believe," "may," "estimate," "continue," "anticipate," "intend," "expect," "predict," "potential" and similar expressions, as they relate to our company, our business and our management, are intended to identify forward-looking statements. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

Forward-looking statements speak only as of the date of this prospectus. You should not put undue reliance on any forward-looking statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read together with the consolidated financial statements and related notes that are included elsewhere in this prospectus. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" or in other parts of this prospectus.

Overview

We are a leading solar thermal technology company that designs, develops and sells proprietary systems that produce reliable, clean energy in utility-scale electric power plants. Our systems use proprietary solar power tower technology to deliver cost-competitive renewable electricity and high-temperature steam for use in applications such as thermal enhanced oil recovery, or EOR. In implementing systems using our proprietary technology, we partner with several parties to develop utility-scale solar electric power plants. These parties include engineering, procurement and construction, or EPC, contractors; boiler suppliers; turbine suppliers; and financing parties that may consist of strategic and/or financial investors.

While we primarily sell systems using our proprietary technology, we also act as the system architect for the layout and optimization of the solar field. In addition, we provide technical services related to the design, engineering and operation of our systems and may provide overall project development services. During the construction phase of a project, we may recognize revenue from the sale of our proprietary technology. For the projects where we lead development, we expect to own initially 100% of the equity in the projects, but may seek development partners on specific projects. A project's assets are typically held by a special purpose, single member limited liability company, in which we are initially the sole member, that we refer to as a project company. We intend to ultimately transfer the majority of the equity in these project companies to third parties while retaining a minority equity interest, as we did with Ivanpah Solar Electric Generating System, or Ivanpah. Until the time of such transfer, we expect to wholly own each project company and consolidate its profits and losses in our financial statements. Outside of the United States, we may or may not have ownership interests in such projects using our systems.

Through our project companies, we have 13 executed and outstanding long-term power purchase agreements, or PPAs, to deliver approximately 2.4 GW of installed capacity to two of the largest electric utilities in the United States, Pacific Gas and Electric Company, or PG&E, and Southern California Edison, or SCE. We believe these PPAs represent one of the largest utility-scale solar pipelines in the United States and should provide us with a significant revenue opportunity between 2012 and 2016. For purposes of illustration, our agreements for the supply of equipment and services to the Ivanpah project, which has three PPAs totaling 377 MW, represent \$672.0 million of contracted sales, which equates to approximately \$1.8 million of contracted sales per MW. Consistent with our 14% ownership in Ivanpah, we recognize 86% of any actual sales as revenue.

In 2007, we entered the thermal EOR business after Chevron selected our technology through a competitive process. After winning the business, we signed a contract with Chevron in 2008 to provide a 29 MWth EOR facility in Coalinga, California. We commenced construction of the Coalinga Solar-to-Steam for EOR project in 2009, and the project began operations in October 2011.

From our inception through December 31, 2011, we have recognized \$196.2 million in revenue. As of December 31, 2011, we had an accumulated deficit of \$288.2 million. We experienced net losses of \$43.8 million for the year ended December 31, 2009, \$71.6 million for the year ended December 31, 2010 and \$111.0 million for the year ended December 31, 2011.

Through December 31, 2011, our revenues have been primarily associated with two projects, Ivanpah and the Coalinga Solar-to-Steam for EOR project.

- **Ivanpah:** Prior to April 2011, substantially all of our revenue associated with Ivanpah was derived from sales of development services to Solar Partners II, LLC, or SPII, one of the project companies formed to facilitate the development of Ivanpah. From March 2007 to October 2009, we were an investor in this project company but did not consolidate the entity as we were not considered the primary beneficiary. Therefore, revenue relating to services provided to this entity was recognized as the services were delivered through October 2009. After October 2009, as a result of our acquisition of additional interests in SPII, this entity was consolidated and all subsequent activity, which had previously been reported as revenue, was eliminated in consolidation. Beginning in the fourth quarter of 2010, construction of Ivanpah commenced. In April 2011, we contributed all of the project companies associated with Ivanpah, including SPII to a new entity, Ivanpah Master Holdings, LLC, or Ivanpah HoldCo, contributed additional assets and accepted new investors into that entity to complete the financing for the Ivanpah project. Following the investment by third-party investors, we are no longer the primary beneficiary of Ivanpah HoldCo or the Ivanpah project companies and, accordingly, have deconsolidated Ivanpah HoldCo.

All revenue from the Ivanpah project subsequent to October 2009 has been associated with our fixed-price solar field supply and related services contracts. We recognize revenue on these contracts using the percentage-of-completion method of accounting. Consistent with our 14% ownership interest in the Ivanpah project, we recognize 86% of the profit margin with respect to our sales to the project only at the time that we are able to make reasonable estimates.

- **Coalinga Solar-to-Steam for EOR project:** All revenue from the Coalinga Solar-to-Steam for EOR project located in Coalinga, California has been associated with solar field supply sales and services. The current contract value including change orders is \$27.8 million, of which nearly 100% has been recognized through December 31, 2011. We have recognized revenue on this contract using the percentage-of-completion method of accounting, with revenue measured as the percentage of cost incurred to date to the total estimated costs to complete the contract. The project began operations in October 2011. This fixed price contract for the Coalinga Solar-to-Steam for EOR project was entered into at a loss. We entered into this loss contract for the purposes of providing a commercially scaled demonstration of our technologies, establishing our technology as a viable solution for the enhanced oil recovery market, validating our heliostat manufacturing processes at volume, testing our supply chain and logistics, and isolating any previously unidentified design or other issues inherent in the construction of a solar field.

In December 2008, upon execution of the commercial agreement to construct the Coalinga Solar-to-Steam for EOR project, we recognized a provision for estimated contract losses representing \$10.5 million. At that time, the estimate of the contract loss was considered reliable and, as such, the appropriate revenue recognition was deemed to be the percentage-of-completion method. As of December 31, 2011, we have recognized a cumulative provision for loss representing the entire anticipated loss since inception of \$67.3 million, or \$56.8 million greater than the initial loss estimate as recognized in December 2008. Discrete events transpired during the periods subsequent to when the initial loss estimate was made, through December 31, 2011, that required adjustments to the original estimated costs to complete the project. These items included non-recoverable customer driven design changes, increased vendor and material costs due to scope and design changes, increased mechanical and electrical costs associated with design and engineering changes, delays and subsequent costs to remobilize and accelerate construction as the result of abnormal weather patterns, and increased costs associated with efforts to accelerate the scheduled completion of the facility.

During the first half of 2011, we experienced substantial increases in our estimated cost to complete due to additional costs being identified that were primarily associated with design specification errors provided by one of our third-party design engineering subcontractors. As we neared the final stages of the construction process, we identified design issues that led to our replacing this design engineering subcontractor. A subsequent detailed review resulted in modification of certain engineering designs associated with the solar tower systems. This change resulted in significant delay and substantial rework. This also resulted in our other construction and electrical subcontractors incurring substantial cost which we do not anticipate being able to recover. The project began operations in October 2011.

As part of the original contract, we agreed to provide ongoing operations and maintenance for the project through the first year of operations. In the third quarter of 2011, we determined that the estimated costs of providing these operations and maintenance services exceeded the expected revenues and as a result, we recognized an additional provision for loss on contract in the amount of \$2.4 million. In the fourth quarter of 2011, we recognized \$6.3 million of warranty expense following the identification of two specific design or component failures for which we are liable under our warranty provisions. Until satisfaction of the twelve-month performance test and completion of the warranty period, our costs may increase and accordingly, we may incur additional provisions for loss on contract.

We do not intend to act as EPC contractor on Ivanpah or future projects as construction and construction management are not our core competencies. Highly skilled and competent EPC contractors, which possess the necessary expertise to effectively fulfill the EPC function, are available and are better qualified to execute the EPC function. For example, Bechtel is acting as the EPC contractor for Ivanpah under a fixed-price contract with our role limited to supplying our proprietary solar field materials and technology and providing engineering and other technical services. We believe that this approach reduces the potential for cost overruns, making our projects more attractive to investors, as the EPC contractor will have sole responsibility for cost overruns with respect to the EPC function. We also believe this approach will facilitate making our liquidity and capital resources needs more predictable.

BUSINESS

Company Overview

BrightSource is a leading solar thermal technology company that designs, develops and sells proprietary systems that produce reliable, clean energy in utility-scale electric power plants. Our systems use proprietary solar power tower technology to deliver cost-competitive renewable electricity with characteristics highly valued by utilities, such as reliability and consistency. Our systems are also used by industrial companies to create high-temperature steam for use in applications such as enhanced oil recovery, or EOR.

Our systems use fields of tracking mirrors, known as heliostats, controlled by our proprietary software to concentrate sunlight onto a solar receiver/boiler unit to produce high-temperature steam. Once produced, the steam is used either in a conventional steam turbine to produce electricity or in industrial applications such as thermal EOR. By integrating conventional power block components, such as turbines, with our proprietary technology and state-of-the-art solar field design, projects using our systems can deliver cost-competitive, reliable and clean power when needed most. In addition, by incorporating thermal storage and integrating our technology with natural gas or other fossil fuels through a process referred to as hybridization, projects using our systems can further increase output and reliability.

In implementing systems using our proprietary technology, we partner with several parties to develop utility-scale, solar electric power plants. These parties include engineering, procurement and construction, or EPC, contractors; boiler suppliers; turbine suppliers; and financing parties that may consist of strategic and/or financial investors.

While we primarily sell systems using our proprietary technology, we also act as the system architect for the layout and optimization of the solar field. In addition, we provide technical services related to the design, engineering and operation of our systems and may provide overall project development services. During the construction phase of a project, we receive revenue from the sale of our proprietary technology. For the projects where we lead development, we expect to own initially 100% of the equity in the projects, but may seek development partners on specific projects. We intend to ultimately sell, accept additional investors, contribute or otherwise transfer the majority of the equity in these projects to third parties while retaining a minority equity interest, as we did with Ivanpah.

The principal members of our technical team pioneered the first utility-scale solar energy plants nearly three decades ago by designing and developing 354 megawatt, or MW, of solar thermal power systems, which remain in operation today. Our technical team has moved beyond these initial solar thermal technologies by engineering a solar power tower system that provides both higher solar energy conversion efficiencies and lower costs. Our team has extensive solar thermal technical and project development expertise and has collectively developed, constructed and managed more than 25 gigawatts, or GW, of solar, wind and conventional power projects worldwide.

We have produced high-temperature steam using our technology since 2008, when we commenced operations at our 6 megawatt thermal, or MWth demonstration solar-to-steam facility, the Solar Energy Development Center, in Israel. We believe this facility has consistently produced the highest temperature and pressure steam of any solar thermal facility in the world, capable of driving highly efficient, cost-effective turbines. This facility validated our technology and continues to provide important operational and production data.

Through our project companies, we have 13 executed and outstanding long-term power purchase agreements, or PPAs, to deliver approximately 2.4 GW of installed capacity to two of the largest electric utilities in the United States, Pacific Gas and Electric Company, or PG&E, and Southern California Edison, or SCE. We believe these PPAs represent one of the largest utility-scale solar pipelines in the United States and should provide us with a significant revenue opportunity between 2012 and 2016. For

purposes of illustration, our agreements for the supply of equipment and services to the Ivanpah project, which has three PPAs totaling 377 MW, represent \$672.0 million of contracted sales, which equates to approximately \$1.8 million of contracted sales per MW. Consistent with our 14% ownership in Ivanpah, we recognize 86% of any actual sales as revenue. As the first step in fulfilling our obligations under the PPAs, in October 2010, we initiated construction on Ivanpah, a project comprised of three concentrating solar thermal power plants on an approximately 3,500 acre site in California's Mojave Desert. As of February 2012, the three power plants at Ivanpah were 26.5%, 18.3% and 15.7% complete, respectively, and overall EPC at Ivanpah was 25.2% complete. When commissioned, Ivanpah will have an installed capacity of 377 MW and will increase the amount of solar thermal generation capacity currently installed in the United States by over 75%.

We have an approximately 90,000 acre development site portfolio under our control in California and the U.S. Southwest that has the potential to accommodate approximately 9 GW (gross) of installed capacity. We currently have three sites in advanced development, Rio Mesa Solar and Hidden Hills Ranch, each located in California, and Sandy Valley, located in Nevada. Rio Mesa Solar consists of approximately 5,800 acres, Hidden Hills Ranch consists of approximately 3,300 acres, and Sandy Valley consists of approximately 10,000 acres. In August and October 2011, we filed Applications for Certification with the California Energy Commission for the development of solar power plants at Hidden Hills Ranch and Rio Mesa Solar, respectively. Although Sandy Valley will not require an Application for Certification because it is located in Nevada, similar permitting activity will begin in 2012.

Our Technology Solution For Utility Applications

Our proprietary solar thermal technology is engineered to produce predictable, reliable and clean energy at a competitive cost. Our solution is specifically designed to address the challenges of utility-scale renewable power generation. Electric power plants using our systems provide:

- **Sufficient generation capacity at peak demand:** Our power production profile, or the amount of power our systems produce at different times of the day, can be tailored to the demand profile that most utilities serve. We optimize our solar field layouts and heliostats to maximize energy production at the time of day when power is in greatest demand. Our technology is able to capture the late afternoon sun more efficiently than fixed-tilt PV panels, as our advanced software adjusts each heliostat individually to continue to track the exact position of the sun, even into the early evening. This enables electric power plants using our systems to deliver more power during times of peak demand. We expect that the on-peak availability of Ivanpah will be significantly higher than electric power plants using wind or fixed-tilt PV, on average. Our production profile also enables electric power plants using our systems to receive higher average prices for power. For instance, in some areas, such as California, utilities such as PG&E and SCE are willing to pay contract prices for peak power supply that are as much as three times the base price for each megawatt hour, or MWh, of delivered energy. This significantly enhances the average revenue per MWh that electric power plants using our systems are able to generate compared to wind systems that typically produce power well below their capacity during peak demand periods.
- **More reliable and consistent power output:** Electric power plants using our systems produce more predictable power output than that of highly intermittent renewable sources such as wind and PV. Because our technology converts solar energy into steam, rather than directly into electricity, the system temperature remains high enough to continue to generate electricity through short periods of intermittent cloud cover. Therefore, electric power plants using our systems are less likely to experience sudden and unexpected power output fluctuations. In addition, we expect that electric power plants using our systems will be able to bridge prolonged reductions in solar power output by discharging energy from a thermal energy storage system or by burning small amounts of natural gas, referred to as hybridization. With electric power plants using our systems, utilities and grid operators will require less backup generation compared to competing wind and PV energy sources.
- **Increased production capability through thermal energy storage and hybridization:** In contrast to wind and PV, our technology allows the incorporation of existing cost-effective thermal energy storage and hybridization. This feature can extend the hours of our production period even after the sun goes down, which is particularly important in areas where demand and prices for power remain high later in the day. Shifting electricity generation to critical, peak hours will command higher energy prices (higher average PPA prices) for power plants using our systems. In addition, according to the National Renewable Energy Laboratory, or NREL, thermal energy storage reduces the cost of electricity by increasing capacity factor and increases the total thermal energy production from a solar field. As a result, thermal energy storage can be used to control the daily supply curve of power plants using our technology, reduce system integration costs and increase reliability and consistency. As utilities purchase greater amounts of electricity from renewable energy sources, we believe the ability to implement energy storage will make our system increasingly valuable to utilities and grid operators. In addition, systems using our technology can be used in combination with traditional fossil fuels such as natural gas, oil and coal, in hybrid generation plants. This hybridization could be operationally very similar to conventional, dispatchable power plants while enabling utilities to save on costs and reduce carbon dioxide emissions during hours when the sun is shining.

As a result of the advantages discussed above, electric power plants using our systems deliver electricity with characteristics highly valued by utilities, such as reliability and flexibility, at a competitive net system cost. In addition, by providing energy during peak demand when utilities are willing to pay the highest price, electric power plants using our systems are able to maximize the revenue realized from the sale of electricity. As the power grid is loaded with increasing quantities of renewable resources such as wind and PV over time, we believe that we will have a competitive advantage over other renewable technologies that impose higher integration costs and do not produce electricity as reliably during periods of peak demand.

Heliostats

Our tracking mirrors, known as heliostats, are highly engineered and designed for accuracy, durability and longevity with minimal maintenance. Our current generation heliostat consists of two flat, low-iron, float-glass mirrors, each borne by a lightweight steel support structure, mounted on a single pylon that also features a computer-controlled drive system that enables the heliostat to track the sun to an aiming point on the solar receiver. In the current system design, a 130 MW plant will utilize up to 60,000 heliostats, depending on land area and shape, and site-specific economic optimization. The low-impact design of the heliostat allows our sites to include a slope of up to 5%, and avoids most of the costs of leveling and grading a site. Moreover, most desert vegetation can remain undisturbed, which is particularly important in environmentally sensitive areas.

15. COMMITMENTS AND CONTINGENCIES

Land Lease Commitments —In the normal course of business the Company enters into land options and lease agreements with third parties to evaluate land for the development of potential solar thermal projects. The land option agreements typically are non-refundable and provide the Company with preliminary site access to perform basic evaluation studies. The land lease agreements provide the Company with expanded access to evaluate the suitability of the site, evaluate property rights, and the ability to perform additional activities to assess the commercial viability of the site. Such activities include, but are not limited to, conducting surveys and other analyses; assessing transmission options; assessing the availability of resources; obtaining clearances from local, federal and other regulatory agencies; and other assessments that are necessary to determine a site is viable. The Company's typically structures land lease agreements to allow the ability to terminate the lease agreement after a certain period of time if it is determined that the site does not satisfy the Company's needs.

In October 2010, the Company obtained a Record of Decision ("ROD") from the U.S. Bureau of Land Management ("BLM") for the Company's Ivanpah Group. The ROD provides the Ivanpah Group with all of the necessary federal permits to commence construction of the solar thermal facility. As part of the ROD, the Company provided a project performance bond in the amount of \$0.4 million, to ensure compliance with the terms and conditions as set forth in the ROD. This bond is classified as a long-term deposit on the Company's consolidated balance sheet as of December 31, 2010. The project performance bond must be maintained in effect until removal of improvements or restoration of the ROD has been accepted by the BLM.

In April 2011, the Company closed the financing of Ivanpah HoldCo with third parties and the DOE, as guarantor, and as a result of this transaction the ROD for Ivanpah HoldCo ceased to be the primary obligation of the Company.

The Company recognized land option payments for the years ended December 31, 2009, 2010, and 2011, of \$0.9 million, \$2.0 million, and \$0.6 million, respectively. The Company recognized land lease expense for the years ended December 31, 2009, 2010, and 2011, of \$0.1 million, \$3.4 million, and \$4.9 million, respectively. In 2011, the Company canceled one of its land leases for a development site in Arizona and as a result, incurred lease termination fees of approximately \$3.0 million. These fees are included in land lease expense for 2011. As of December 31, 2011, future minimum rent payments for land leases and options were immaterial.

Power Purchase Agreements—Southern California Edison (“SCE”)—In February 2009, with certain amendments in 2010, entered into a set of agreements related to the development of solar thermal projects with SCE, the output of which will be sold to SCE. All of the PPAs were at market rates when originally entered into with SCE. One of the original PPAs entered into in 2009 was associated with Ivanpah HoldCo and as a result of the 2011 Ivanpah Transaction in April 2011, is no longer the primary obligation of the Company. In October 2011, the Company executed five amended and restated PPAs with SCE. These PPAs were submitted to the California Public Utilities Commission (“CPUC”) for approval in November 2011; as of December 31, 2011, all five PPAs were pending approval by the CPUC. The Company agreed to post and to maintain a security deposit (“seller security”) during the development and construction phase of the solar projects. As a result of the amendment and restatement of the five PPAs in 2011, total seller security deposits will be approximately \$65.0 million. The Company has posted \$32.7 million, or 50%, of the required total as of December 31, 2011. The Company will be required to post the remaining 50% of the seller security deposits upon CPUC approval of the PPAs.

As of December 31, 2010 and 2011, the Company has recorded \$4.6 million and \$32.7 million, respectively, of the total seller security deposit requirement under long-term deposits in the consolidated balance sheets.

Power Purchase Agreements—Pacific Gas and Electric Company (“PG&E”)—In April 2009, with certain amendments in 2010, seven of the Company negotiated with PG&E to rescind and replace the set of agreements (collectively, the “PG&E Agreement”) originally entered into in March 2008. These agreements are related to solar thermal projects, the output of which will be sold to PG&E. All of the PG&E Agreements were at market rates when they were originally entered into with PG&E, and all seven PG&E Agreements have been approved by the CPUC.

Under the amended agreements, the Company has agreed to certain pricing changes for future energy output and to post and maintain security deposits during the development and construction phase of the solar projects. Security is to be posted in tranches based upon the achievement of certain milestones, the first of which being the signing of the new PG&E Agreement. The security is to be released as of the commercial operation date of each project provided no damages are owed to PG&E.

As of December 31, 2010, and 2011, \$9.1 million and \$18.0 million, respectively, is recorded as restricted cash – long-term for the project development security.

Two of the above PPAs are associated with Ivanpah HoldCo, and as a result of the 2011 Ivanpah Transaction in April 2011 as described in Note 5, are no longer the primary obligations of the Company.

In connection with the PG&E Agreement, the Company’s wholly-owned foreign subsidiary entered into a royalty agreement with PG&E, guaranteed by the Company pursuant to which the Company’s foreign subsidiary has agreed to pay certain royalties to PG&E, up to a maximum of \$20.0 million, on sales of its integrated solar field system and licenses of its solar field technology. No royalty shall be due with respect to sales of its integrated solar field systems and licenses of its solar field technology as part of the first 100 megawatts of electrical generating capacity of a single project to be designated by the Company’s foreign subsidiary and PG&E. Royalties will accrue on sales of the solar field systems and licenses of its solar field technology upon the first commercial operation date of the project described above.